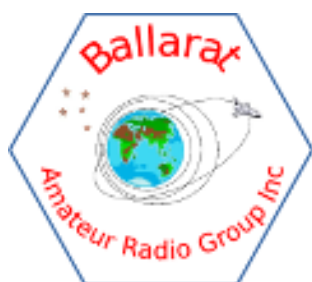


JUNE 2023

Ballarat Amateur Radio

100 Years



BARG News

Ballarat Amateur Radio Group

Inc. #6953T

June 2023 Monthly Newsletter



Next Meeting

11:00am, Saturday 24th June 2023

At the Airport

All Welcome



Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

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Times and dates of nets as per below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM
with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

*For full details of this linked network and access details
see <https://www.qrz.com/lookup/vk3rba>*

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Colin Consiglio VK3NCC
Secretary	Mal White VK3OAK	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Lachlan Macdonald VK3ALM
Ordinary Member	Ian Fairweather VK3YFD		



Text created by ChatGPT, and other Large Language Models is spreading rapidly across the Internet.

It is well-written, artificial, and frequently inaccurate.

If you find a mistake in this Newsletter, rest assured it was made by a real human being.

(Any ChatGPT items appearing in this publication will be suitably identified.)



By the way, ChatGPT misspelled your name.

New Dates and Times of BARG General Meetings

As many have found, the Airport Road is open again, with a speed limit. The meeting dates for the next 2 months still remain Saturdays at 11.00am are as follows:

Saturday June 24th at 11 am

Saturday July 29th at 11 am

Construction Sessions/Days

Are on the next two dates:

Saturday July 1st at 1 pm

Saturday August 5th at 1 pm



VK TRANS-TASMAN CONTEST



July 15 @ 8:00 am - 2:00 pm UTC+0

The Trans-Tasman contest, held on the 3rd weekend in July, aims to encourage Low Band activity between VK and ZL.

Only contest bands 160 80 and 40M are allowed with SSB, CW and Digital (RTTY OR PSK).

Work as many VK and ZL Prefixes and as many different stations on 160 80 and 40M in a short evening contest.

Details: <https://www.wia.org.au/members/contests/transtasman/>



President's Report June 2023



There is not much to report on this month.

The only thing that I must mention is the 100 Years of known Amateur Radio operation in Ballarat.

There have been a few things put out about proceedings for this and the number of certificates issued has been around 20 at the last number I heard mentioned.

The Ballarat Times ran a small article on it thanks to Kim VK3FMIK for being in the photo and Colin VK3NCC for writing the press release for it.

For more information on 100 Years of Known Amateur Radio Activity in Ballarat and how to claim a certificate are on the BARG website.

Next meeting is on Saturday the 24th of June at 11 am.

See those of you who make it to the meeting on the 24th June.

73's Ben VK3NRD.

Radio Group Photo Album

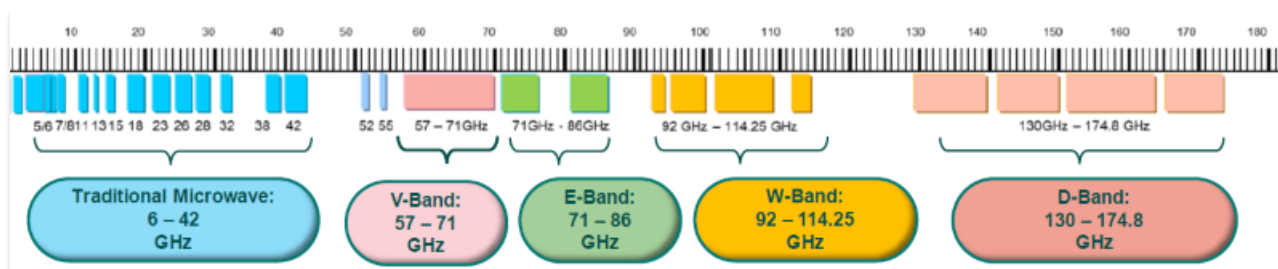
Ballarat Times photograph, Kim VK3FMIK at the microphone.

For 100 years of Amateur Radio in Ballarat.

Scenes from Midland Golf Club, Saturday Lunch.



WINTER 2023 VHF UHF Field Day



Contest Manager, Roger Harrison VK2ZRH.

Upcoming Contest Date & Time

Winter 2023 - 0100 UTC Saturday 24 June through 0059 UTC Sunday 25 June

Spring 2023 - 0100 UTC Saturday 25 November through 0059 UTC Sunday 26 November

The Field Days provide VHF-UHF operators with the opportunity to "head for the hills" and see how far distant and how many stations they can work.

The Field Days have separate sections for single and multiple operator stations. The duration of the Field Day is 24 hours, but there are also 8-hour sections for operators who may not be able to camp overnight. Most club stations prefer to operate for the full 24 hours.

The Field Days also generate plenty of activity from home stations, so there is also a separate Home Station section.

All contacts must be simplex: contacts through repeaters or satellites are not allowed. There is plenty of FM activity, but one feature of the Field Days is a high level of SSB activity.

What's the Frequency?

Here are the worldwide frequencies for
Amateur Radio on the International Space Station

Crossband voice repeater

437.800 down / 145.990 up (PL 67.0 Hz)

Packet Radio - Currently APRS

145.825 up and down

Educational Contacts

145.800 down





VHF and Above for June 2023



We are now into the depths of Winter and from my non activity I have nothing to report this month.

However, I would like to take this opportunity to advertise as a bulk lot some of my microwave equipment that I'm not intending to use in the future. The items are listed as a bulk purchase only and is offered to anyone interested before advertising elsewhere.

FOR SALE

The microwave band equipment is for 3.4GHz, 5.7GHz and 10GHz. A description for each is listed below. An FT817ND is the tuneable I.F for each transverter and has the high stability oscillator allowing for external 10MHz GPS or High Stability 10MHz oscillator the latter being employed. I.F. for all transverters is the 432 MHz band.

All transverters have internal 10MHz OCXO.s and provide for 10 MHz GPS external locking if required.

3.4GHz Transverter is the VK3XDK design and has a 20-watt P.A. attached.
The antenna is a 600mm offset dish with home brew feed.

5.7GHz Transverter is the VK3XDK design and has a 5-watt P.A. attached.
The antenna is a 600mm offset dish with home brew feed.

10.0GHz Transverter is a modified Mitek transverter with 1 watt P.A. attached
The antenna is a 600mm offset dish with homebrew feed. In addition, there is a MITEK prime focus 600mm dish with flange adaptor and SMA connector.

A high-capacity Gel Cell is included to run the above (high capacity and heavy)

A heavy-duty tripod is part of this package as well on which to mount all of the above.

Price is not negotiable and pickup only available at \$2000 for all of the above.
Cheers, Ian VK3AXH

Don't Forget Coming Up

Remembrance Day Contest, AUGUST 12 – 13, 2023

100 Years of known Amateur Radio Activity in Ballarat

Dear BARG Members,

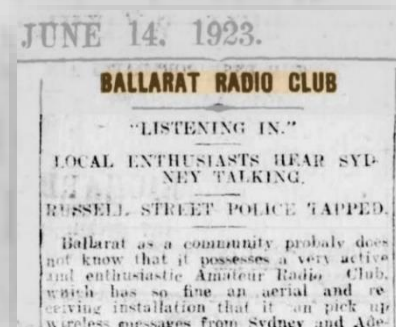
"QTH" is usually shared when making the first QSO with a station, and then is not usually referred to again when having regular QSO with stations.

As members of the Ballarat Amateur Radio Group, we associate ourselves with the general area of Ballarat and its history.

The word "Ballarat" usually conjures up images of pioneering, hardship, gold, discovery, democracy, the Southern Cross, even the Olympic games.

But this month of June 2023 is a period when we have a reason to mention Ballarat for another reason during all our radio activity and discussions.

1923 seems to have been a year when "wireless" was being enthusiastically picked up by many experimenters around Australia.



June 2023 is the anniversary of 100 years of known amateur radio activity in Ballarat. Something we think is worth commemorating.

Wander off to the BARG website, follow the link on the front page and have a read.

Arm yourself with some of the relevant historical details gleaned from the invaluable TROVE resource and recorded on the website.

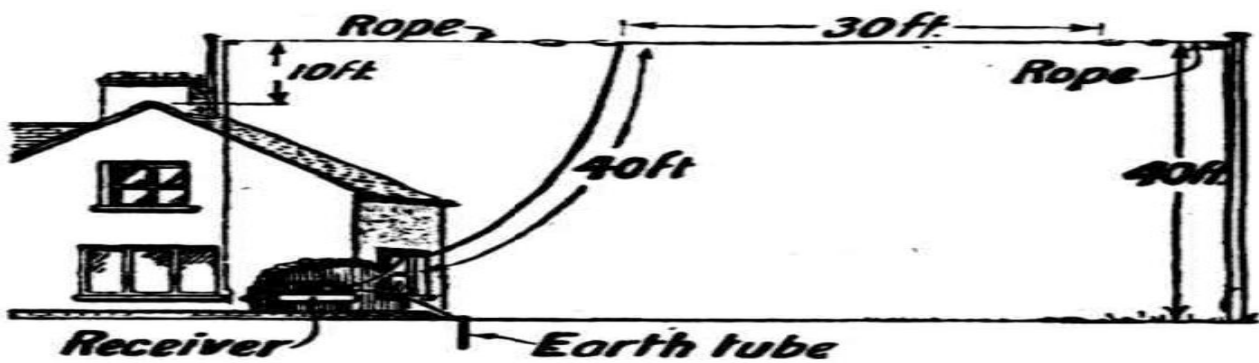
We ask that BARG club members and other Ballarat stations make a mention of the 100 Year significance during QSOs, check if the contacted station has a validly published email address and then *YOU* enter the details at the BARG website. It should take less than 1 minute to enter the information.

So here is your opportunity to:

- get on air and make some noise,
- make mention of this anniversary,
- invite other stations to visit our website and have a read and
- please enter the minimum details of your QSO where you mentioned the event.

We can't send a certificate unless we know who to send it to.

73 VK3NCC, VK3KG



100 Years of Radio in Ballarat

In old Ballarat town, where time does flow,
A century has passed, come let us show,
The Ballarat Amateur Radio Group's might,
A centenary celebration, shining bright.

A hundred years of waves in the air,
Amidst the winds, with diligence and care,
From humble beginnings, they took their flight,
Exploring the realms of radio's might.

In days of old, when Morse code reigned,
With dots and dashes, messages contained,
The spark of communications, a single spark,
Igniting the flame, lighting up the dark.

Wireless whispers crossed the great divide,
Voices and melodies, no longer tied,
Through airwaves, they danced, in symphony,
Uniting the world with harmonious decree.

Radios, once grand, with valves aglow,
Transformed the world, a technologic show,
As time progressed, innovation did bloom,
New horizons emerged, dispelling the gloom.

Transistors arrived, small but mighty,
A revolution in radios, so flighty,
Portable wonders, compact and sleek,
Empowering individuals, the future to seek.

Satellites joined the cosmic ballet,
An orbiting symphony, lighting the way,
Signals transcending borders, beyond the sky,

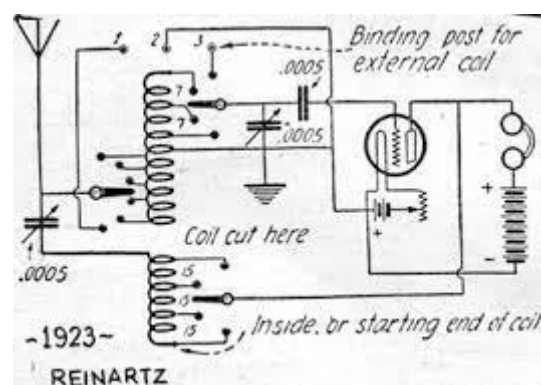
Unleashing knowledge, as time rolled by.
Digital dawn, a transformative spree,
Bits and bytes, encoding the key,
Binary language, zeros and ones,
Unlocking potential, the modern-day runs.

From analogue waves to digital stream,
From Morse code taps to a worldwide theme,
The Ballarat Amateur Group in stride,
Adapting, embracing, with passion as their guide.

A centenary's tale, of progress profound,
Technological wonders, forever renowned,
From humble sparks to digital age,
Radio's journey, an endless stage.

So, raise your antennas, let frequencies soar,
With pride and reverence, this day adore,
The Ballarat Amateur Radio Group's light,
A century celebrated, shining ever so bright.

By VK3PTW with a little help from chatGPT.



“Extending Life”

Deal with Stress;

- *Have social connections with like minds.*
- *Count your blessings.*
- *Have a sense of purpose and a good set of values.*
- *Have happy thoughts for others and have gratitude.*
- *Thank you—to people;
and some volunteering.*

Really summarises to:

- *Gratitude/Blessings*
- *Values*
- *Consideration/Respect for others*

Very much like our club members with a sense of being, sharing, and helping each other.

John VK3CFH and others.

Who is Arthur (Artie) Moore?

Titanic: Amateur radio heard SOS in Welsh town 3,000 miles away.

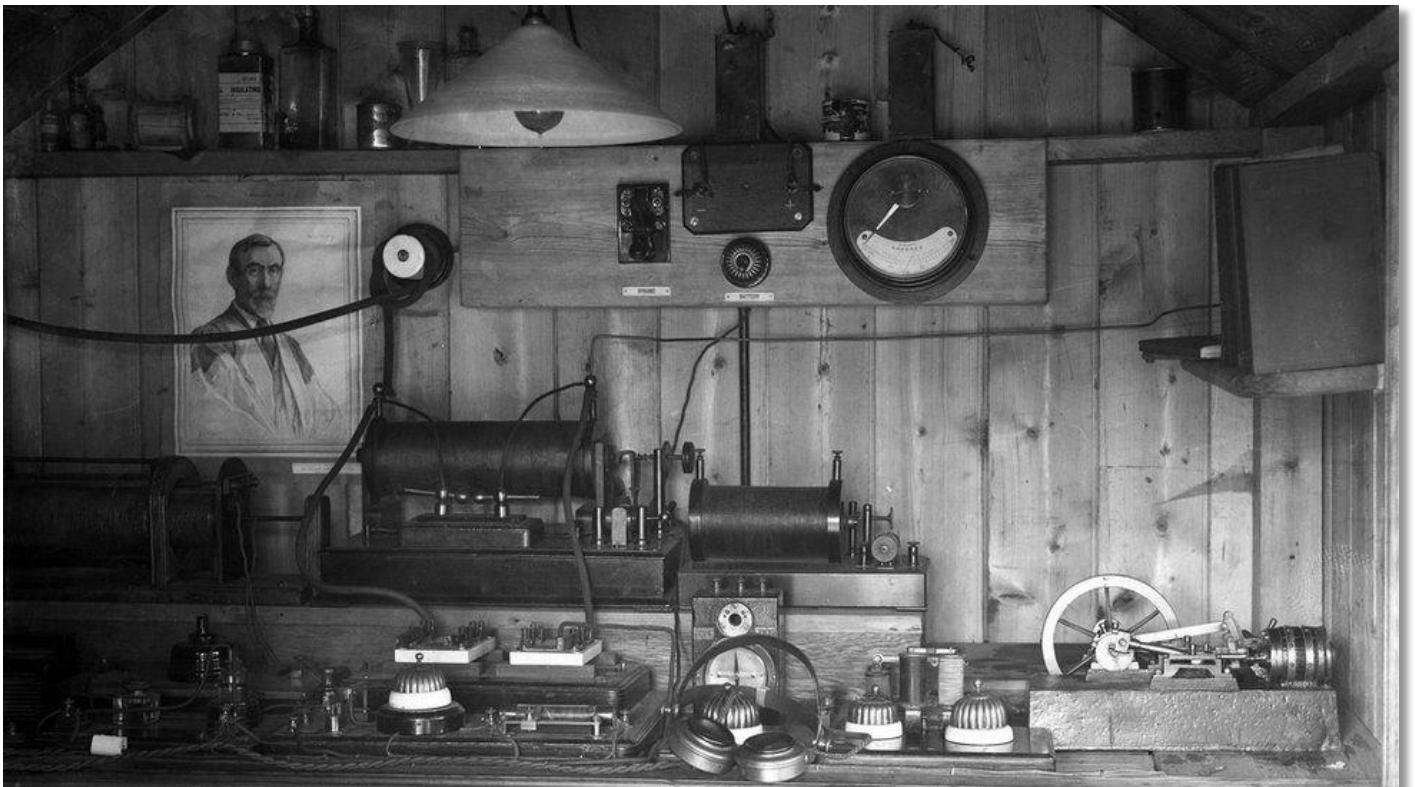
<https://mc0mnx.webs.com/>



In the early hours of April 15th, 1912, in the loft of the 17th century Gelligroes Mill in the Sirhowy Valley in Wales, a young radio experimenter using crude radio apparatus received a terrifying signal in Morse Code: "CQD CQD SOS de MGY Position 41.44N 50.24W. Require immediate assistance. Come at once. We have struck an iceberg. Sinking....We are putting the women off in the boats..." Then came the final signal: "Come as quickly as possible old man; our engine-room is filling up to the boilers". The signals were transmitted from the ill-fated RMS Titanic, and the name of the young radio experimenter was Arthur (Artie) Moore.

Artie breathlessly relayed the dreadful news to the locals, and two days later both Artie and the local's received confirmation through the national Welsh press that it was indeed true, and that over 1,500 poor souls had tragically perished in the icy waters of the north Atlantic.

The newspapers also confirmed – as Artie had claimed – that the new 'SOS' distress signal had been used by the Titanic's radio operators along with the usual 'CQD' signal, proving that Artie had indeed received the signals from the doomed liner.





From Humble Beginnings;

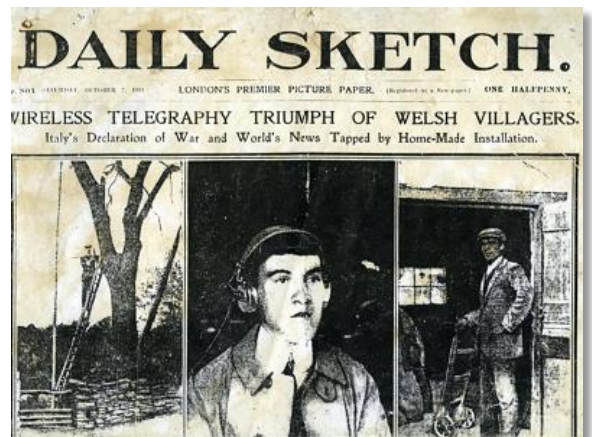
Artie Moore was born in 1887. As a child Artie was involved in an accident at the mill, which resulted in the loss of the lower part of one of his legs, and for the rest of his life, he wore a wooden leg. At some point prior to the year 1909, Artie, using a handmade lathe driven by the waterwheel at the mill, built a working model of a horizontal steam engine. He entered the model in a competition in the "The Model Engineer" magazine, and he received a book by Sir Oliver Lodge entitled Modern Views of Magnetism And Electricity, and turned his attention from engineering to the new science of those days – wireless.

Working at Gelligroes Mill in Pontllanfraith near Blackwood, Gwent, he soon began erecting wire aerials and building his rudimentary radio station, consisting of a coherer-based receiver and a spark-gap transmitter.

Front Page News;

An exciting development took place when Artie made the front page of the London newspaper The Daily Sketch, after he intercepted the Italian government's Declaration of War on Libya in 1911.

But it was his reception of the Titanic's distress call which propelled Artie into a career that was to take him from that little mill in Wales and on to greater things within the realms of early wireless development.



Enter Marconi;

In the summer of 1912, Artie's activities soon led to him coming to the attention of the Monmouthshire Education Committee, who offered him a scholarship to the British School of Telegraphy in London, so he left to embark on his studies in the world of science and wireless.



At this time Artie's activities came to the attention of Guglielmo Marconi, the 'father of wireless' himself. One local resident wrote to Marconi to inform him of Artie's achievement. Marconi then came to Gelligroes to meet Artie and to discuss his work and his experiments, and he invited Artie to join the Marconi Company as a draughtsman.

By 1914, Artie was transferred to the Ship Equipment Department of the Marconi Company, and on the outbreak of the First World War he was engaged as a technician in 'special Admiralty fittings' – working on the armed merchant ships which operated clandestinely on the open seas and were known as 'Q' ships.

He supervised the installation of wireless equipment on the Dreadnought-class battleships HMS Invincible and HMS Inflexible which steamed the 8,000 miles south to the Falkland Islands in 1914, to face down a German naval threat to the south Atlantic islands.

Peacetime Activities:

In 1918, Artie Moore was appointed to the Marconi Company's Liverpool establishment. There he took charge of the newly formed Ship Equipment Department where the latest and most up to date transmitters were being fitted. In 1923 he was transferred from the Marconi Company to the Marconi International Marine Communication Company at Avonmouth, where he was appointed Manager.



Not content simply to 'manage', Artie's innovative spirit led him to patent a basic form of sonar in 1922. Artie stayed at Marconi's Avonmouth establishment until his retirement in 1947, but by 1948, with his health failing he moved to Jamaica to recuperate. Artie was 62 and would never return to Wales, his homeland. After only six months in Jamaica he left for England, and on Thursday the 20th of January 1949 he passed away in a Bristol convalescent home.

Don't Kid Yourself If You Get Hit

Radio 3HA Security Camera, image curtesy of ACE Radio



Ford Will Keep AM Radio In 2024 Cars

Ford has backpedalled on its decision to move on from AM radio and will include it in all 2024 Ford and Lincoln vehicles, AM radio isn't quite dead yet among those selling cars in the US.



The carmaker's announcement was made on the heels of a bipartisan bill introduced in Washington, D.C., pressing for AM broadcast radio's retention as a public safety measure.



Ford CEO Jim Farley announced on social media that the reversal comes after discussions with government policy leaders who believe the elimination of AM broadcast radio in vehicles will cut motorists off from essential emergency alerts transmitted on those frequencies.

The CEO wrote that all 2024 Ford and Lincoln vehicles would include AM radio. He added "For any owners of Ford's EVs without AM broadcast capability, we'll offer a software update."

The update would restore AM functionality.

<https://www.forbes.com/sites/antoniopequenoiv/2023/05/23/ford-will-keep-am-radio-in-2024-cars-after-all-amid-pressure-from-lawmakers-and-gop-pundits/?sh=613254fcbd7d>

82.3 million. That is the number of people in the U.S. who listen to AM radio monthly, according to data from a Fall 2022 [Nielsen survey](#) cited by radio syndicator Westwood One.

NZART Memorial Contest

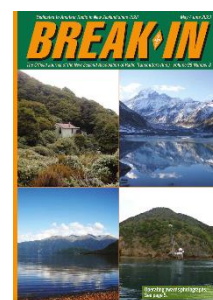
The NZART Memorial Contest has been held every year since 1946 to commemorate those New Zealand amateur radio operators who lost their lives in World War 2.

The contest is held every year on the Saturday and Sunday of the first weekend of July.

The 2023 Memorial Contest dates are 1st and 2nd of July.



NZART
New Zealand Association of
Radio Transmitters Inc.



Magazine Reviews

QST May 2023 Review

Review by Craig VK3KG

P5 INDEX for May 2023 edition.

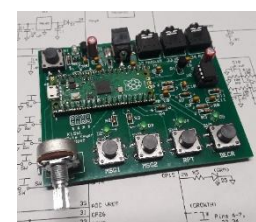
P9 Second Century. Bouvet. --- A Very Tough Teacher. Into the DXCC and some 300 countries and the 100,000 planned contacts for this expedition. Also, those that deliberately QRM and pirate imitator's that exist out there. See www.dx-code.com for recommendations how to ignore them. And what of the future of DX-peditions to activate rare locations? And should there be a change of the rules and the "umpires' decision.'

P13 Member spotlight: Keith KC1ATT. Licenced since 1980 but not active till now. Joining the navy and gaining an engineering bachelor degree in electrical engineering and spending four years active service and twenty years reserve in the Navy's Sea Bee's construction battalion before working for Bell labs and Pacific Bell, leading onto be CEO of South Western Bell and eventually AT&T. Moving on he developed his own SDR website www.radiocheck.us and his present interest in 24GHz phased arrays transceiver has produced www.icuspeeder.com to allow him to detect those who choose to exceed speed limits on his house street. He is now active in his local club, the Williamson County Radio Club and acts as an ELMER to newer members.



P24 Members Letters. Always a good read as we can ask help of others or just receive advice.

P30. Simple Morse Memory Keyer. While some modern transceivers have an inbuilt keyer this simple DIY design doesn't have as many button pushes requirements and can be left as a standalone dedicated unit having four separate messages that can be invoked. Using a Raspberry Pi Pico mite can handle up to 40WPM.



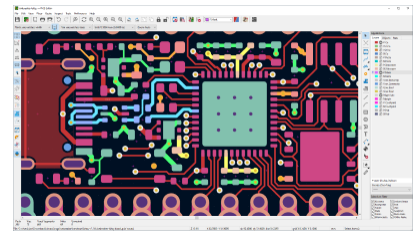
Dave K1SWL has developed software for the Pi and is found at www.arrl.org/qst-in-depth web site. He has also a site at www.teraterm.org for a free terminal emulator. There is PCB available for a minimal charge at <https://midnightdesignsolutions.com>

Dave has left the corporate world to run his own company Small Wonder Labs and to now be active in amateur radio as well woodworking and gardening.

K1swl@arrl.net

If any updates for this project go to www.arrl.org/feedback

P33 Surface Mount Design and Assembly for the Everyday Amateur. Using the free program called KICAD found at www.kicad.org Scott AG7FF tells of many tutorials for practice and says it's possible to be able to produce own layout of the smd within a few hours. There is a library of components available, however Mouser electronics and Digi Key can also supply other library components for loading in. Scott gives web address for two board suppliers he uses.



For soldering a SMD an hot air gun soldering iron is used but another way will not cause components to be blown around and that is to use a solder paste on the board which holds the component in place while some heat from an old inexpensive toaster oven is used to raise the temp and get the solder flux to flow under and around the component and copper tracks.

A new experience to solder this way and do not need to use the old Scope iron !!?? to solder these tiny things.

P37 Review Xiegu G106 5 Watt QRP Transceiver that covers 80M to 10M and has a continuous tuning receiver from 550KHz to 29.7 MHz. Also, it can cover the FM band 88-108 MHz. Having an internal CW keyer covering 5-50WPM with an adjustable tone pitch between 500 to 1000Hz. Available in US for \$US320 from distributors the manual can be read and loaded from www.radioddity.com A digital interface DE-19 is available for US\$70. The review has detailed pinout for Xiegu transceivers.



P42 REVIEW: CTR2-Mini+Radio Controller by Lynovation. Visit www.lynovation.com for more an assembled kit is US\$140

P46 Tiny GS- An Application of LoRa Technology. Is a tiny 70cm transceiver for data and more found at www.tinygs.com also <https://github.com/G4lile0/TinyGS> Made by LILYGO www.lilygo.cc and priced around USD20 and 30



P49 Ask Dave looks Antennas and Backup power. Where should the 49:1 UNON go on the mast with an EFHW dipole. But why put it high up there.? Read the reply from Dave.

KB2JSB asks What can he do to fix the high SWR for his rig's internal tuner when attempting uses of their 75metre band. And James KK1NGJ has a concern for his laptop battery replacement and asks about a UPS system.

P51 Hints & Kinks.Hy Gain AV=680 Tips. Gathering Back up Fuses; A Movable Amp.: Crafting a mobile Mic Mount.

P53 Front End Amplification and Filtering for the tiny SA. See Mar 2021 Review.

P55 Beginner Foxhunting. Rob Z1NUG approaches the subject simply and explains the equipment and how to use it as you chase the fox. A book called ON THE AIR' {Mar/Apr2023 by Charlie NZ01 and covers orienteering. See www.arrl.org/ota then go and look at radio=orienteering.



P59 Experience the Wonders of Solar Cycle 25's Solar Maximum. Will the next four years bring great communications on HF.??

P64 FCC Exposure rules soon to affect every US Radio station. RF Exposure rules and calculations for all amateurs and compliance See the ARRL's compliance Calculator <http://arrl.org/rf-exposure-calculator> .

Are we ready this time for compliance testing of our systems now? And what happens if we get a general issue high power licence?

P67 ARRL Ham Radio equipment Insurance scheme plan. Would this idea work in VK or maybe the small fine print would close it for all of us.

P71 The Benefits of using an External speaker.

P80 Club Station: Creating and Maintaining a Club Newsletter. All club members should read this as You may be an editor some time down the track. Do you know what there is to set up a printed newsletter or magazine.

P82 Media Playlist: Well worth the read as it's about Hayden Honeywood VK7HH and he produces his own material for his web and regular broadcasts.

See www.youtube.com/HamRadioDX For Hayden's site.

P84 How's DX.? 3Y0J B OUVET Island. See also P9 this edition.

P86 Above 50 MHz. Long Path F-Region propagation on 50.0 MHz.

P93 Look Back. QST for June 1973. They were tracking OSCAR satellite then with an Az El system P98 Classic radio: A brief history of E F Johnston Company they made the Johnson Viking and Ranger series. Starting in 1923 it entered the amateur market around 1949. As the market changed, they moved into CB radios and last amateur radio rolled out in 1965. The company is still alive but is now known as Kenwood.

P100 100, 50 and 25 years ago.



QST June 2023 Review

Review by Craig VK3KG

P9 Second Century. When Collaboration Works.... David NA2AA the CEO of the ARRL was surprised by the response of their members over his April 2023 column when he announced a survey of members would be released to give him an idea of members wishes, needs, and desires for the future direction of the ARRL.

Note here that we could quite easily substitute the name of Wireless Institute of Australia in that position also. Anyway he replies that he was surprised but heartened to receive hundreds of Emails as a result of the questionnaire and in particular received a very active response from two high profile manufacturers and advertisers in QST. This is how the heading has evolved because many had spoken their ideas and views and been able to

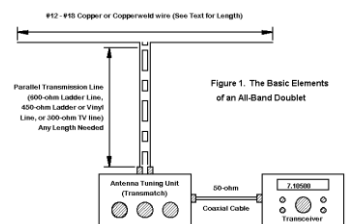


discuss and format some common ideas for future activities and other things for the betterment of amateur radio and our hobby. Even so there is always going to be dissent and non-compliance, as one NON member had said ***"I don't care if I am wrong, I'm entitled to my opinion and last time I checked that's my right"***

P13 Member Spotlight. Today it's on Vinny Del Giudice, WWB2KQG A journalist who seems to have travelled widely and reported on al, manner of things, good and bad and came to radio as a 9 year old and traveled through the CB radio scene until he gained his Novice at 15 years with WN2TES and then to his Amateur Extra in 2001. Active in FT8, 6M and 10M SSB and FM.

P24 Correspondence from members.

P30 Build a Portable 80 to 10M Doublet. Using a 66ft dipole fed by open wire feeder of 46 feet and using a Balun from 4:1 down to a Tuner to allow for the multiple bands where it may not be resonant and have some SWR on the feeder line. The tuner is able to balance out most of these problems and maintain the expected 50 ohm impedance feeding to the transceiver. www.atentop.org/w4rnl.001/edu6.html and see some work from the late JB Cebik iW4RNL SK. Details are offered to construct your own feeder using hook up wire and plastic spacers. I have found that black plastic water risers are avail at the big green shop and can be cut to size easily or even purchase a roll of the same sized flexible pipe AND CUT YOUR OWN TO SIZE.



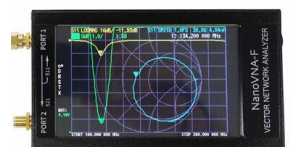
A mast support can also use a star picket in the ground and a length of white gas pipe fitted over and ANOTHER white pipe/aluminium forms an upper portion.

If you want to utilize it, a fishing Squid Pole may be fitted here now.

P33 Discusses using the IC-9700 TRANSCEIVER. In Portable mode. Make a harness to hang around the neck for the radio and another for an external battery Set up a head set with microphone hands free and construct a small handheld section to which a 2M/70cm cross Yagi is mounted, [3el / 7 el] and you have a good satellite tracking station. There is a rundown on setting up and tracking a satellite while conducting a through conversation. An interesting story of one man's operation.



P37. Using NanoVNA to measure accurate losses of a small Network. A bit of simple circuit analysis of the homebrew tuner and how to adjust and set up before using. See some follow up reading at www.arrl.org/qst-indepth for some supplementary examples.



P41 REVIEW Anytone BT-01 Bluetooth speaker Microphone.

P48 Dr Duino Inventor Edition {Pro Version} a kit development board. www.DoctorDuino.com

P50 The YAESU M-1 Reference Microphone. A bit more than just a microphone. USD \$672

P53 ASK DAVE: HF Antenna Issues and Operating Techniques.

- P55 ARRL sets a Clean Signal Initiative Interesting read and attempt to clean up spurious signals in out of band and other harmonic frequencies.
- P58 SOTA POTA and VHF Contest: A Multi-Purpose Operation on Pikes Peak.
- P61 Family vacation for the family and what does one man do? Working on the Annual 13 Colonies Special Event portable.

This month we have a seven page take out insert for the 2023 ARRL Field day guide as a supplement. While not directly relevant to us in Oz there is one page that reminds the field worker about matters of safety. Major headings are—Lightning Safety. Antenna safety. Generators and Electrical safety. Medical safety and finally Physical safety. Very specifically the last two points need to be kept to the front of all our thinking especially our individual health and care of it. Always keep self-Hydrated on the hot days and be mindful of the need to keep well insulated and warm on days AND NIGHTS when operating in the bush or on exposed hill tops as a night sentry on the bands.



The section suggests that there “Is Life Beyond Phone” and we should look at modes like CW and digital and although not performing to a specific ARRL standard a list is made with TICK box for all known states and countries to check off after working them. Lists are great ideas for all sorts of activities, and we all need to be aware of using them.

As a guide their list could be adapted for anyone’s use as their own checklist for activities. Do you have a simple load list before you “go Bush”? it can sometimes be worthwhile and stop you leaving a critical lead behind?

That reminds me of a story from my time in the army when someone [not me] had forgotten to check that a small flexible length of waveguide for a radar was left some 100Km away and he wasn’t able to report READY until it was replaced some hours later. Tut tut.

- P67 Public Service discusses using a Field Day activity to show off not just your operating skills but to use as a recruiting exercise for membership. Even at a sausage sizzle clubs can advertise themselves.
- P70 Onwards list a number of activities and competitions for those interested.
- P76 Catching a Bird with a LoRa Mesh Network. Initially set up using the 906 MHz band to link up a meshed network. Costing about USD50 each it has potential for use during emergency activation or contact between multiple locations.

This system was set up and trialed using timber bird boxes placed up suitable trees. Using a small 5V solar panel and an external whip antenna although small beams could be used also. <https://github.com/brucemack/WARS-Birdhouse>

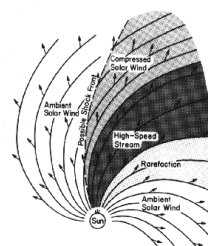


- P78 Media Playlist. Kyle AA0Z Covering multiple facets of Ham Radio. On the YouTube another presentation at WWW.youtube.com/@aa0Z He describes his three band dipole from a single feed coax and BALUN using

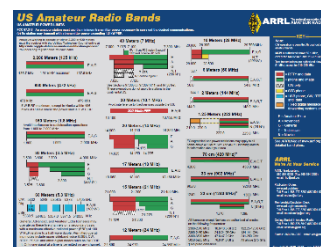
demountable “bullet” connectors for each dipole. An easy approach to having a field adaptable dipole.

P80 How's DX. Tribute to K3ZO SK and looks at Incoming QSL Bureaus.

P82 World above 50 MHz. Solar cycle 25 and Geomagnetic storm. www.spaceweather.com Band opened to Falkland Ise on 6M in March to the US From Hawaii to Mexico, and Asia Pacific openings. There were 24 VK's worked and includes 8 from VK8 areas.



P91 Are you interested in knowing the American band plan? There is a good coloured A4 page of their band plan here. Don't tear the page out though I will get the Editor to scan and insert it in next club newsletter or even on the club's website. Keep watching.



P94 to P98 Looking back to QST of July 1973. Had an FM adapter for 2M AM Transmitters. Only trouble you must use the receiver on slope detection for listening to incoming signals. Circuit was using two 741 Op amps and fed directly into the crystal socket of the Tx.

P100 Classic Radio. The Hallicrafters S-40 receiver was introduced in 1946 for US\$79-50. A simple restoration to replace dried out electrolytics in power supply and other wax covered [condensers] capacitors in rest of the circuit.



P102 100, 50, and 25 years ago. Read the index from earlier years. Bet the circuits still work though some of the news may be a bit out of date.

There's still plenty of great advertising with mouthwatering gear that would look good in any ones shack.

Till next month... 73 Craig VK3KG.

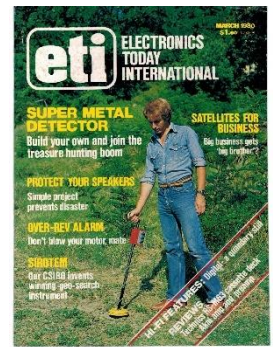
Silicon Chip June 2023 Review

P14 Starlink, Swam and Starshield. An informative article on the evolution and service provided by SpaceX Low Earth Orbit (LOE) satellites. The advantages of LOE and the hardware development that has enabled this form of networked internet for the man in the street, desert or on a mountain.

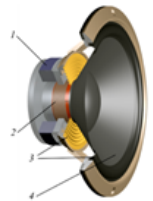


P26 Basic RF Signal Generator. Produces a basic test signal from 10Hz to 25MHz, using a microcontroller and a DDS module. Test plots and design details are included. It is available as a basic kit (no case) from SC shop.

P38 The History of ETI Magazine. A blast from the past as we look at the beginnings and rise of an Australian electronics magazine to worldwide publishing in UK, The Netherlands, France, and Germany. The input from the many staff and contributors along with wide array of subjects and equipment to build. The days when PCB design was totally different to modern processes. Also, the EA and ETI merger up to the final edition September/October 2001. The EA history combined meant that this was the longest run of an electronics magazine in Australia, 1922 to 2001.

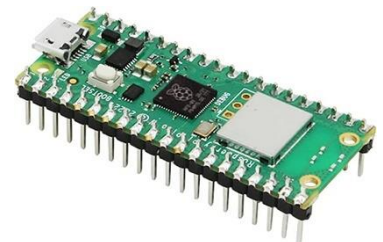


P44 Loudspeaker Test Jig. Incorporating your computer sound card to measure not just loudspeaker characteristics, but inductors, capacitors and measuring complex impedances. 10Hz to 20kHz, with about 5W into a speaker. Full hardware construction diagrams and instructions. Some online software and you can test and graph on your PC.



P56 Setting Up and Using the Room EQ Wizard. A program to use with the Loudspeaker Test Jig to help design speakers, enclosures and tweak your sound system.

P60 WiFi Time Source for GPS Clocks. If you have trouble with reliable GPS clock signals, a Raspberry Pi Pico W can by using the NTP on the internet provide the signal required. Testing instructions and setup procedures to adapt the project to many different GPS reliant clocks etc.



P70 The Y2K38 Bug and Other Gremlins. There are still time related bugs in the digital world. 2036 and 2038 are possible glitches. UNI and GPS rollover problems are discussed and the occasional "leap second" that gets included due to solar time and atomic clock time discrepancies.

P72 Wideband Fuel Mixer Display, Part 3. The assembly of all the parts and setting up the sensor and wiring it into your car. How to read your display and alternative mounting practices.



P83 Circuit Notebook. Minimalistic Carbon Dioxide Detector. DCC Block Train Detector. Cupboard Light. 3D-Printed case for The Advanced Test Tweezers.

P86 Servicing, Repairing and Replacing MECHANICAL VIBRATORS. Although basically concerned with one V6295-type vibrator, this article gives a very good explanation of the operation of these devices when solid state power inverters were not around. Some scope traces showing the characteristics of faulty and properly working vibrators. A solid-state replacement design is shown, and parts and construction included.



P96 Serviceman's Log. 8-channel DAC repair, PVR (Personal Video Recorder) repair with pictures. An electric oven. Daikin air conditioner. Range Rover excessive battery drain. 10year old Dot Matrix Printer bought back to life.

Question: Why don't retirees mind being called Seniors?

Answer: The term comes with a 10% discount.

Question: What is the common term for someone who enjoys work and refuses to retire?

Answer: NUTS!

DIYODE June 2023 Review

P10 What's New: All-in-One Development Board, Rock 4C Plus 4GB single-board computer, Flexible Helping Hands With LED Magnifier, Digital Powered 10W Soldering Iron, mBot2 robot by Makeblock, Batmobile™ DIY Kit by Circuitmess,

P14 DIY Night Vision: Build your own Raspberry Pi powered night vision goggles! Complete with an Iron Man style HUD and headset! Complete set of instructions, construction methods and how night vision works.

P23 Electronic Load, Part 2: Provides Constant Current Load, Constant Voltage Load, Constant Power Load, can determine Battery Capacity and also determine the MPPT Voltage of Solar panels. It also has Wi-Fi capability which enables Battery capacity and Solar Panel data to be sent via MQTT to a Home Automation System for plotting and analysis.

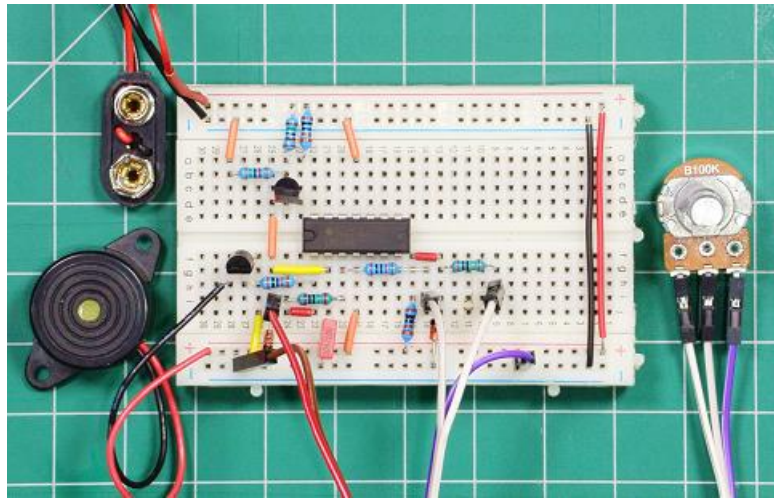
P57 Ports Aplenty ESP8266 Port Expansion Techniques: The ESP8266 MCU is provided with a limited number of usable digital I/O ports and with only one analog input port. Such limitation needs to be confronted whenever the MCU has to drive several digital and analog sensors or actuators. Shows two methods to expand I/O.

P69 Fundamentals: Oscillators: Covers some basic oscillator building blocks to explore in experiments and projects.

P86 New Heights High Altitude Weather Balloon: Another update from high school student, Nolan, about getting his STEM project into space. Testing and implementing new ideas.

P84 Kids' Basics: Advanced Continuity Tester: A design that uses an Op-Amp to make a useful test device.





**THIS IS A SPACE THAT YOUR ARTICLE
OR PHOTOGRAPH COULD BE AT!!!!
THE EDITOR DOES NOT LIKE BLANK
PAGES!!!!!!!!!!!!...**

(The editor has lots and lots of Grandad Jokes and Puns that can be used to fill the blank spaces. Be warned!)

Back Copies of BARG inc. Newsletters

There are available on the BARG website scanned copies of old BARG Newsletters. <https://www.barg.org.au/>

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.
Great job.....



NEWSLETTER ARTICLES - NEWS REQUIRED

To keep the quality and variety in this newsletter!
(Newsletter Editor sanity to be preserved as well)



(A Henry Moritz, VK3DXC SK, creation)

- If you have a project, antenna, vehicle installation, some club or amateur radio history or somewhere you have operated amateur radio.
- Have you bought a bit of gear or accessory that you have used and think it would be interesting for others to know about.
- If you go bush to operate.
- Tell us about it!!!!!!!
- Some pictures and a simple bit of text telling us about your endeavours is all we need.
- If you think your journalistic talents are lacking, like most of us, then apply pen to paper and in point form. Write what you want to say.

Some massaging from the editor will make your article shine.

No matter how small or large, contributions gratefully accepted. tomvk3dmk@gmail.com